11. The nonaqueous secondary cell of claim 10, wherein the lithium composite manganese active material is expressed by a general formula $Li_xMn_{2-y}M_yO_4$, wherein $.09 \leq x \leq 1.4$; $y \leq .3$; and M is one or more materials selected from the group consisting of Ti, V, Cr, Fe, Co, Ni, and Al.

12. The nonaqueous secondary cell of claim 11, wherein the positive electrode comprises about 86% of the positive electrode active material, about 10% graphite, and about 4% polyvinylidene fluoride.

13. A method of producing a positive electrode material active material for a non-aqueos electrolyte cell, comprising:

(a) mixing a first ingredient with a lithium composite manganese oxide of about 86% by weight of the lithium composite manganese oxide;

(b) molding the mixture under pressure;

(c) sintering the mixture at a temperature not lower than 600°C and not higher than 900°C.

14. The method of claim 13, further comprising pulverizing the sintered mixture.

15. The method of claim 13, wherein the step of mixing the first ingredient further includes creating a slurry of 86% by weight of lithium composite manganese oxide, about 10% by weight of graphite, about 4% polyvinylidence fluoride, which then dissolved in a solvent.

16. The method of claim 15, further comprising uniformly applying the slurry to aluminum foil to obtain a thickness of about 20 um.

17. A nonaqueous electrolyte secondary cell, comprising:

(a) a positive electrode containing as a positive electrode active material a lithium composite manganese oxide having spinel structure and whose primary particle diameter is not less than 0.05 μm and not greater than 10 μm, forming an aggregate, and whose specific surface measured by the BET method is not less than 0.2 m^2/g and not greater than 2 m^2/g;

(b) a negative electrode containing a carbon material selected from the group consisting of pyrocarbon, coke, glassy carbon, organic polymer compound sintered body, and carbon fiber; and

(c) an electrolyte.

18. The nonaqueous electrolyte secondary cell of claim 17, wherein the negative electrode contains a material capable of reversively doping and dedoping lithium.

19. The nonaqueous electrolyte secondary cell of claim 18, wherein the material capable of reversively doping and dedoping lithium is at least one selected from the group consisting of a carbon material, metal lithium, lithium alloy, polyacene, and polypyrol.

20. The nonaqueous electrolyte secondary cell of claim 17, wherein the positive electrode comprises about 86% of the positive electrode active material, about 10% graphite, and about 4% polyvinylidene fluoride.

21. The nonaquous electrolyte secondary cell of claim 17, wherein the electrolyte is at least one selected from the group consisting of $LiClO_4$, $LiAsF_6$, $LiPF_6$, $LiB(C_6H_5)_4$, LiCl, LiBr, CH_3SO_3Li, and CF_3SO_3Li.

22. The nonaqueous electrolyte secondary cell of claim 17, wherein the electrolyte is dissolved in an organic solvent that is selected from the group consisting of propylene carbonate; ethylene carbonate; 1,2-dimethoxymethane; gamma-butyrolactone; tetrahydrofuran; 2-methyltetrahydrofuran; 1,3-dioxolane; sulfolane; acetonitrile; diethyl carbonate; and dipropyl carbonate.

Remarks

Initially submitted were claims 1 to 9, of which claims 1, 3, and 4 were independent. Now, claims 1 to 9 are canceled and new claims 10 to 22 are submitted, of which claims 10, 13, and 17 are independent.

Some of the rejections lodged in the 21 Feb. 2002 office action are now moot in view of the new claims. The applicants note that the response requests a change in the attorney docket number, an insertion of the statement of cross related applications, an addition to the specification of the definition of BET as suggested by the examiner.

The independent claims now call for claims now call for certain negative electrode compositions and/or various percentage weights of the materials. None of the limitations are taught or suggested by the now claimed inventions. The primary prior art reference, Miyasaka, does not fairly teach nor suggest the now claimed inventions.

The Nakajiima reference (US Patent No. 6,337,158) is not prior art. It is noted that this reference has a US filing date after this application's JP foreign filing date. It is noted that the Nakajima reference is not entitled to its prior JP filing dates as under sections 102(e) and 119(a)-